

REMARKS

Claims 1-7 are pending in this application. Claims 6-7 are withdrawn by the Office Action.

For at least the following reasons, Applicant respectfully requests withdrawal of the rejections and prompt allowance of the pending claims.

I. Objections to the Specification

The Office Action objects to the specification for containing informalities. The specification is amended as suggested. Applicant requests withdrawal of the objection.

II. Restriction Requirement

Applicant hereby affirms the election of Group I, claims 1-5, with traverse.

Because claims 6-7 depend from claim 5, claims 6-7 must be rejoined and allowed when claim 5 is allowed. See MPEP § 821.04.

III. Claim rejection under the doctrine of obviousness-type double patenting

The Office Action rejects claims 1, 4, and 5 under the doctrine of obviousness-type double patenting over claims 6, 11, and 12 of copending application 10/827,426 in view of U.S. Patent 6,599,582 to Kiguchi, et al. (Kiguchi).

This rejection has not matured. When this rejection matures, Applicant will consider the rejection and take appropriate action.

IV. Claim rejections under 35 U.S.C. § 103(a)

A. First Rejection

The Office Action rejects claims 1 and 3 under 35 U.S.C. § 103(a) over U.S. Patent 6,599,582 to Kiguchi, et al. (Kiguchi) in view of U.S. Patent 5,347,713 to Shibata et al. (Shibata), U.S. Patent 5,683,520 to Edgett, et al. (Edgett), and U.S. Patent 4,966,480 to Watanabe et al. (Watanabe). Applicant respectfully traverses the rejection.

Regarding claim 1, Kiguchi, as admitted by the Office Action, fails to disclose "filling a passage, including a liquid droplet ejection head to dispose the liquid droplets and a conduit to feed the functional solution to the liquid droplet ejection head, with purified water; filling the passage with a solvent dissolving both a solvent contained in the functional solution and the purified water; [and] filling the passage with the solvent contained in the functional solution" [emphasis added].

Shibata, Edgett, and Watanabe fail to cure these deficiencies.

Shibata discloses a method for manufacturing ink jet heads in which ink jet heads can be cleaned of swarf by washing with pure water infused with carbon dioxide bubbles or an organic solvent (col. 2, lines 1-12). In the first embodiment, pure water including carbon dioxide bubbles is injected from nozzles 33 into ink supply ports 5 during the manufacturing process (col. 6, lines 36-42). Shibata discloses only removing contaminants (swarf) present as a result of the manufacturing process and only in the ink jet head.

Edgett discloses a method for cleaning ink storage materials such as felt or foam (abstract) by heated and softened water to which isopropanol has been added (abstract) to remove contaminants present as a result of the manufacturing process (abstract). Edgett's disclosed process is effective for removing calcium/phosphorous salts and phosphate antistats (col. 3, lines 22-27).

Watanabe discloses a washing liquid cartridge 10 for washing refill ink type writing instruments which contains a washing liquid chosen to dissolve the ink used in the refillable writing instrument (abstract). Watanabe does disclose use of a solvent the same as the solvent used in the ink, if the ink contains a solvent (col. 4, line 67 to col. 5, line 2).

Each of Shibata, Edgett, and Watanabe only disclose use of a single cleaning fluid. None of the references discloses the cleaning of a passage including an ink jet head and a conduit. Further, Shibata and Edgett are directed to the removal of contaminants (swarf,

calcium/phosphorous salts, and/or phosphate antistats) left by the manufacturing process, they are not directed to removing dried or solidified ink as claimed.

Thus, regarding claims 1 and 2, Kiguchi, Shibata, Edgett, and Watanabe, alone or in combination, fail to disclose

"filling a passage, including a liquid droplet ejection head to dispose the liquid droplets and a conduit to feed the functional solution to the liquid droplet ejection head, with purified water;

filling the passage with a solvent dissolving both a solvent contained in the functional solution and the purified water; [and]

filling the passage with the solvent contained in the functional solution"

B. Second Rejection

The Office Action rejects claim 2 under 35 U.S.C. § 103(a) over Kiguchi in view of Shibata, Edgett, and Watanabe, and further in view of Japanese Patent Publication JP 11-001046 to Nakamura, Japanese Patent Publication JP 2000094707 to Fujioka et al. (Fujioka), and U.S. Patent 6,342,105 to Yano et al. (Yano). Applicant respectfully traverses the rejection.

Regarding claim 2, Kiguchi at least fails to disclose "filling a passage, including a liquid droplet ejection head filled with a predetermined storage solution and a conduit to feed the functional solution to the liquid droplet ejection head, with a first solvent dissolving the storage solution; filling the passage with a second solvent dissolving both the first solvent and a solvent contained in the functional solution; [and] filling the passage with the solvent contained in the functional solution."

Shibata, Edgett, Watanabe, Nakamura, Fujioka, and Yano fail to cure these deficiencies. None of the references discloses the use of a solvent to dissolve a storage solution and none of the references discloses use of a solvent to dissolve both the solvent used

to dissolve the storage solution and the solvent in the functional solution. None of the references discloses the filling or cleaning of a passage including both an ink jet head and a conduit.

For the forgoing reasons, Applicant respectfully requests withdrawal of the rejection.

C. Third Rejection

The Office Action rejects claims 4-5 under 35 U.S.C. § 103(a) over Kiguchi in view of Shibata, Edgett, and Watanabe, and further in view of U.S. Patent Publication 2003/0030689 to Hashimoto et al (Hashimoto). Applicant respectfully traverses the rejection.

Claims 4 and 5 are patentable for the same reasons as their corresponding independent claim 1.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-7 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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